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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/599,542

06/23/2000

Warren L. Braun

05380003AA

1198

30743 7590 12/19/2006

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EXAMINER

TRAN, HAI V

ART UNIT

PAPER NUMBER

2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/19/2006

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/599,542

Applicant(s)

BRAUN, WARREN L.

Examiner

Hai Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments***

Applicant's arguments filed 10/03/2006 have been fully considered but they are not persuasive.

Applicant argues, "Interrogation or polling of cable drops or subscriber units, of course, involves downstream signaling... and consumes bandwidth over the communication link; both of which are avoided by the present invention by producing independent time bases which are externally synchronized... In other words, by using independent externally synchronized time bases at both the cable drops and the central facility, the invention is self-scanning or self-polling and thus the needs for any downstream signaling is avoided and the bandwidth which would otherwise be consumed by downstream signaling can be utilized to provide wide operating margins even when communications are conducted with large numbers of cable drops during satisfactorily short intervals to provide useful and suitably timely reporting of conditions."

In response, the Examiner notes Applicant above remark; however, Applicant contradicts himself because Applicant clearly self-admitted that his/her system does clearly need/involve "downstream signaling" to cable drops or subscriber units after satisfactorily short intervals (but not during those satisfactorily short intervals) so to be able to maintain a synchronization between the cable drops and the central facility. This self-admission clearly concurs with Applicant's specification (page 16, lines 20-page 17, line 30).

In view of that the Examiner asserts that Applicant's invention clearly needs to have at least one downstream signaling to cable drops or subscriber units, i.e., one at the beginning and one at the end of a satisfactorily short interval. The Examiner don't see how Applicant's invention could be realized without any "downstream signaling" to cable drops or subscriber units, as alleged by Applicant's remark, i.e., "the need for any downstream signaling is avoided" and as disclosed in Applicant's specification, page 16, lines 20-page 17, line 30.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Applicant's remark at page 9-11) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In this instant, nowhere in Applicant's claims language indicate 1) the invention is self-scanning or self-polling, as alleged by Applicant. 2) Applicant's claims language exclude "interrogator-responder systems", as alleged by Applicant.

Applicant further argues (Applicant remark, page 11), "...even if, *arguendo*, the Examiner were correct in asserting that downstream signaling is required by the invention, that 'fact' would not be probative of the propriety of the rejection. That is, any assertion that downstream signaling is required does not serve to indicate that the independent time bases synchronized with an external broadcast signal as claimed is answered or shown to be obvious over other different arrangements such as

master/slave time bases or direct interrogation signals in the prior art which clearly require downstream signaling that the invention does not and thus avoids while realizing its meritorious functions.”

In response, the Examiner respectfully disagrees with Applicant because none of the Applicant 's claims indicate that Applicant 's claims limitations do NOT require downstream signaling, as such Applicant's remark is moot.

Applicant further argues, “In summary, none of the prior art applied by the Examiner teaches or suggests a system having independent time bases synchronized from an external, broadcast time base signal or which are capable of functioning without downstream signaling as detailed in the above-incorporated response filed May 2, 2006; remarks which the Examiner has improperly dismissed based on a clearly erroneous and illogical interpretation of a passage of the specification clearly contrary to its evident content which is indicative of use of impermissible hindsight.”

In response, the Examiner respectfully disagrees with Applicant because features upon which applicant relies, (i.e., a system having independent time bases synchronized from an external, broadcast time base signal or which are capable of functioning without downstream signaling), are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, Applicant 's argument is moot.

Moreover, Applicant's arguments merely address Applicant 's own invention/specification without specifically pointing out how the language of the claims

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patentably distinguishes them from the references, as such the Examiner maintains the rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 , 7-11, 13-18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161).

Claim 1, Ritter discloses a signal distribution system (Fig.1) including:

A communication path between a central facility 10 including signal source and a termination section including a plurality of cable drops (Col. 2, line 47-Col. 3, lines);

A condition detector (Fig. 12; 420) at respective ones of the plurality of cable drops (Col. 7, lines 73-Col. 8, lines 35);

Means (Fig. 12, 410) for providing a sequence of tones responsive to the condition detector (Col. 8, lines 27-35);

Means for coupling the sequence of tones to the communication path during a time slot determined by a time base at the termination section of the communication path (Col. 8, lines 35-45); and

Means for decoding the sequences of tones at the central facility in accordance with respective time reference (slot) determined by a time base at the central facility, the respective time reference (slots) including a time reference slot) corresponding to the time reference (slot) as determined by the time base at the termination section of the communication path (Col. 6, lines 55-Col. 7, lines 32).

Ritter further discloses the time base at the termination section of the system is entirely independent on the time base at the central facility (The principle change is that solid state switching circuit 120 now switches the signal from the output driver circuit 121 to the individual output channels at a specific time after receipt of a time reference pulse. This time reference pulse is developed in the subscriber unit... see Col. 6, lines 50-62). In view of that the time reference pulse is time slot determined by time base (terminal clock) of the terminal section. Moreover Ritter 's central facility inherently has a time base (central facility clock) for Data synchronization and Data communication purposes. As such, time base (terminal clock) of the terminal section is independent from the time base (central facility clock) of the central facility and responsive to a broadcast time signal (i.e., synchronization time).

Ritter does not clearly disclose respective time slot determined by a time base at the central facility including a time slot corresponding to the time slot as determined by the time base at the termination section of the communication path.

Citta, in an analogous art, discloses respective time slot determined by a time base (the time base inherently must have in order to generate the time slot) at the central facility, the respective time slots including a time slot corresponding to the time slot as determined by the time base (the time base inherently must have in order to generate the time slot) at the termination section of the communication path (Col. 7, lines 24-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter with time slot synchronization for two-way communication in CATV, as taught by Citta, so that upstream data packets are transmitted in VBI-synchronized time slots for reducing data transmission errors and increasing data throughput to the CATV headend in a multi-subscriber contention system, as suggested by Citta (Col. 7, lines 59-64).

Claim 7, Citta further discloses "wherein the time base includes a counter for counting time slots" (Fig.1 and 4; Col. 7. lines 55);

Claim 8, "a comparator responsive to the counter for identifying time slots corresponding to respective ones of the plurality of cable drops" is further met by Citta (Col. 4, lines 15-45);

Claim 9, Citta further discloses means for latching an output of the condition detector and wherein the comparator is responsive to an output of the

means for latching and the counter for controlling the means for generating the sequences of tones (Fig. 1; Col. 4, lines 45-50; Col. 4, lines 24-55);

Claim 10, "a time base at the central facility and means for counting time slots at the central facility " is further met by Ritter in view of Citta because Citta's headend must have a corresponding mean for counting time slots (Col. 7, lines 55-65).

Claim 11. "means for comparing an output of the means for counting time slots and an output of the means for decoding the sequence of tones" is further met by Ritter in view of Citta so the central facility is able to determine if all the interrogated subscribers did received all transmitted data and to further determine the status of the interrogated devices, as disclosed (Ritter, Col. 8, lines 40-45).

Claim 13, "means for resetting the counter" is further met by Ritter in view of Citta (Col. 7, lines 34-38) for the obvious reason of synchronization between each time slot.

Claim 14, "means for synchronizing the counter with the means for counting time slots at the central facility" is further met by Ritter in view of Citta so the system able to perform as discussed in claims 10-11.

Claim 15-17, Ritter in view of Citta inherently stores power for operation of condition detector by providing sequences of tones as discussed from the previous claims and modulate the carrier signal in the CATV environment in which the frequency of the carrier signal is approximately 25 MHZ (Col. 7, lines 15- 20).

Claim 18, as discussed with respect to claims 1, 7 and 8.

Claim 22, Ritter in view of Citta inherently storing power for performing the assigning and selectively coupling steps with electrical circuits so to perform as disclosed.

2. Claim 2, 4-5, 12 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161), and further in view of Sullivan (US 3757035).

Claim 2, Ritter in view of Citta further discloses wherein the means for providing the sequence of tones (Ritter; Col. 3, lines 5-30; Col. 8, lines 14-33).

Ritter does not clearly disclose the sequence of tones is a sequence of tone pairs

Sullivan discloses the means for providing the sequence of tone pairs (Fig. 9; Col. 25, lines 62-65+); Therefore, it would have been obvious to one of

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ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta, with the use of sequence of tone pairs, as taught by Sullivan, so to reduce bandwidth needed for transmitting the selection and interrogation signal, as suggested by Sullivan (Col. 25, lines 64-65).

Claim 4, Sullivan further discloses wherein the condition detector detects at least one of power outage and ingress (Col. 18, lines 45-52) for obtaining condition of remote receiver at the subscriber station for maintenance purpose.

Claim 5, Sullivan further discloses wherein the system is divided into plurality of sectors (Branches; Col. 8, lines 45-55) for network management purposes.

Claim 12, Sullivan further discloses mean for controlling polling frequency of the cable drops (the central station cyclically transmits the interrogation signals to remote stations; Fig.3);

Claim 23 is analyzed with respect to claim 2.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161), and further in view of Sullivan (US 3757035), and further in view of Ortel (US 5712897).

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Claim 3, Ritter in view of Citta and Sullivan does not disclose wherein the means for decoding provides a digital signal input to a printer.

Ortel in a similar art discloses wherein the means for decoding provides a digital signal input to a printer (Fig. 3, el. 303; Col. 4, lines 49-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta and Sullivan with Ortel so to produce an on-line description of the problem detected including location of the network element affected (Col. 4, lines 50-54).

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161), and further in view of Lo Galbo et al. (US 5280629).

Claim 6, Ritter in view of Citta does not clearly disclose wherein the time base is provided at directional coupler providing communication links to a plurality of the cable drops.

Lo Galbo (Fig. 2, el. 501) discloses the time base is provided at directional coupler providing communication links to a plurality of the cable drops (Col. 5, lines 53-Col. 6, lines 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta with Lo Galbo so to allow the remote system to broadcast its message synchronously in which the

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synchronized system would compensate the efficiency of the system without directly evaluating the distribution channel delay.

5. Claims 19, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161), and further in view of Ortel (US 5712897).

Claim 19, Ritter in view of Citta does not clearly disclose "printing indicia corresponding to the sequence of tones."

Ortel in a similar art discloses wherein the means for decoding provides a digital signal input to a printer (Fig. 3, el. 303; Col. 4, lines 49-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta with Ortel so to produce an on-line description of the problem detected including location of the network element affected (Col. 4, lines 50-54).

Claims 20 and 21 are analyzed with respect to claim 19.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is (571) 272-7305. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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2006/12/05


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